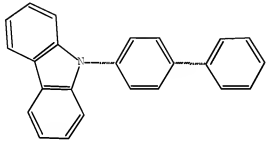
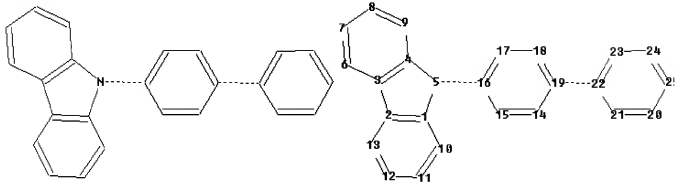
******* QUERY RESULTS *******
(NARROW SEARCH)

```
   ⇨ d his l6

     (FILE 'REGISTRY' ENTERED AT 13:09:28 ON 23 SEP 2008)
                SAVE TEMP L5 GAR262REGL4/A

     FILE 'HCAPLUS' ENTERED AT 13:12:07 ON 23 SEP 2008
L6             1 S L5

   ⇨ d que l6
L1              STR
```



Structure attributes must be viewed using STN Express query preparation:

Uploading L2.str



```
ring nodes :
1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23
24  25
chain bonds :
5-16  19-22
ring bonds :
1-2  1-5  1-10  2-3  2-13  3-4  3-6  4-5  4-9  6-7  7-8  8-9  10-11  11-12  12-13
14-15  14-19  15-16  16-17  17-18  18-19  20-21  20-25  21-22  22-23  23-24  24-25
exact/norm bonds :
1-5  4-5  5-16  19-22
exact bonds :
2-3
normalized bonds :
1-2  1-10  2-13  3-4  3-6  4-9  6-7  7-8  8-9  10-11  11-12  12-13  14-15  14-19
15-16  16-17  17-18  18-19  20-21  20-25  21-22  22-23  23-24  24-25
isolated ring systems :
```

containing 1 : 14 : 20 :

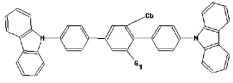
Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom
20:Atom 21:Atom
22:Atom 23:Atom 24:Atom 25:Atom

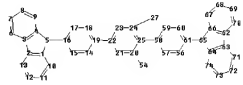
L2 642 SEA FILE=REGISTRY SSS FUL L1
L3 STR

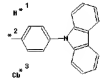
□ STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

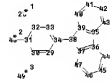
Structure attributes must be viewed using STN Express query preparation:

Uploading L4.str









chain nodes :
27 28 48 49 54
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
24 25 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47
56 57 58 59
60 61 62 63 64 65 66 67 68 69 70 71 72 73 74
chain bonds :
5-16 19-22 20-54 24-27 25-58 31-48 34-38 61-65
ring bonds :
1-2 1-5 1-10 2-3 2-13 3-4 3-6 4-5 4-9 6-7 7-8 8-9 10-11 11-12 12-13
14-15 14-19 15-16 16-17 17-18 18-19 20-21 20-25 21-22 22-23 23-24 24-25
29-30 29-34
30-31 31-32 32-33 33-34 35-36 35-39 35-43 36-37 36-44 37-38 37-47 38-39
39-40 40-41
41-42 42-43 44-45 45-46 46-47 56-57 56-61 57-58 58-59 59-60 60-61 62-63
62-66 62-70 63-64
63-71 64-65 64-74 65-66 66-67 67-68 68-69 69-70 71-72 72-73 73-74
exact/norm bonds :
1-5 4-5 5-16 20-54 34-38 37-38 38-39 61-65 64-65 65-66
exact bonds :
2-3 19-22 24-27 25-58 31-48 35-36 62-63

```
normalized bonds :
1-2  1-10  2-13  3-4  3-6  4-9  6-7  7-8  8-9  10-11  11-12  12-13  14-15  14-19
15-16  16-17  17-18  18-19  20-21  20-25  21-22  22-23  23-24  24-25  29-30  29-34
30-31  31-32
32-33  33-34  35-39  35-43  36-37  36-44  37-47  39-40  40-41  41-42  42-43  44-45
45-46  46-47  56-57
56-61  57-58  58-59  59-60  60-61  62-66  62-70  63-64  63-71  64-74  66-67  67-68
68-69  69-70
71-72  72-73  73-74
isolated ring systems :
containing 1 : 14 : 20 : 29 : 35 : 56 : 62 :


G1:[*1],[*2],[*3]

Match level :
1:Atom  2:Atom  3:Atom  4:Atom  5:Atom  6:Atom  7:Atom  8:Atom  9:Atom  10:Atom
11:Atom  12:Atom  13:Atom  14:Atom  15:Atom  16:Atom  17:Atom  18:Atom  19:Atom
20:Atom  21:Atom
22:Atom  23:Atom  24:Atom  25:Atom  27:Atom  28:CLASS  29:Atom  30:Atom  31:Atom
32:Atom  33:Atom
34:Atom  35:Atom  36:Atom  37:Atom  38:Atom  39:Atom  40:Atom  41:Atom  42:Atom
43:Atom  44:Atom
45:Atom  46:Atom  47:Atom  48:CLASS  49:Atom  54:CLASS  56:Atom  57:Atom  58:Atom
59:Atom  60:Atom
61:Atom  62:Atom  63:Atom  64:Atom  65:Atom  66:Atom  67:Atom  68:Atom  69:Atom
70:Atom  71:Atom
72:Atom  73:Atom  74:Atom
Generic attributes :
27:
Number of Carbon Atoms : 7 or more
49:
Number of Carbon Atoms : 7 or more




L5            8 SEA FILE=REGISTRY SUB=L2 SSS FUL L3
L6            1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L5


   ⇨ d l6 ibib abs hitstr

L6   ANSWER 1 OF 1  HCAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:         2005:697162  HCAPLUS  Full-text
DOCUMENT NUMBER:          143:182921
TITLE:                    Host material for organic electroluminescent device
INVENTOR(S):              Nakamura, Hiroaki; Arakane, Takashi; Iwakuma,
                          Toshihiro; Ikeda, Kiyoshi; Ikeda, Hidetsugu; Kubota,
                          Mineyuki
PATENT ASSIGNEE(S):       Idemitsu Kosan Co., Ltd., Japan
SOURCE:                   PCT Int. Appl., 37 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 Japanese
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
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RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
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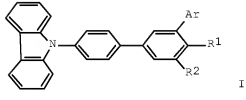
IN 2006CN02686		A	20070608	IN 2006-CN2686	20060721
PRIORITY APPLN. INFO.:				JP 2004-12630 A	20040121
				WO 2005-JP522 W	20050118

OTHER SOURCE(S): MARPAT 143:182921

GI



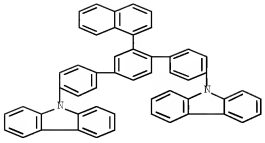
I

AB A compound which is used for organic electroluminescent device (EL) having a long luminescent life and excellent heat resistance. It is a host material for organic electroluminescent devices which comprises a carbazole derivative represented by the general formula (I), where one of R1 and R2 is a group represented by the structural formula (1-phenyl-4-yl)_luorine (II), and the other is a group represented by the structural formula (II), hydrogen, or aryl having 6 to 50 nucleus carbon atoms; and Ar is (un)substituted aryl having 6 to 60 nucleus carbon atoms, provided that Ar is neither Ph, 4-biphenyl, 4-terphenyl, nor 4-quaterphenyl and that when R1 is hydrogen and R2 is a group represented by the structural formula (II), then Ar is not 3,5-diphenylphenyl.

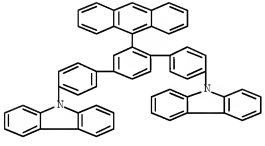
IT 861213-06-1 861213-07-2 861213-08-3
861213-09-4 861213-10-7 861213-11-8
861213-12-9
RL: DEV (Device component use); USES (Uses)
(host material for organic electroluminescent device)

RN 861213-06-1 HCAPLUS

CN 9H-Carbazole, 9,9'-[2'-(1-naphthalenyl)[1,1':4',1''-terphenyl]-4,4''-diyl]bis- (9CI) (CA INDEX NAME)



RN 861213-07-2 HCAPLUS
CN 9H-Carbazole, 9,9'-[2'-(9-anthracenyl)[1,1':4',1''-terphenyl]-4,4''-diyl]bis- (9CI) (CA INDEX NAME)



RN 861213-08-3 HCAPLUS
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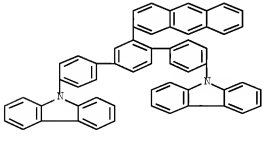
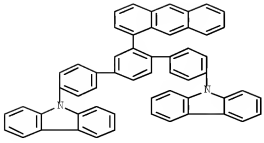
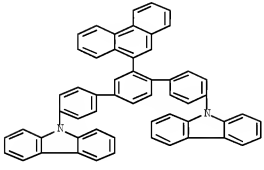


RN 861213-09-4 HCAPLUS
CN 9H-Carbazole, 9,9'-[2'-(1-anthracenyl)[1,1':4',1''-terphenyl]-4,4''-diyl]bis- (9CI) (CA INDEX NAME)



RN 861213-10-7 HCAPLUS
CN 9H-Carbazole, 9,9'-[2'-(9-phenanthrenyl)[1,1':4',1''-terphenyl]-4,4''-diyl]bis- (9CI) (CA INDEX NAME)



RN 861213-11-8 HCAPLUS
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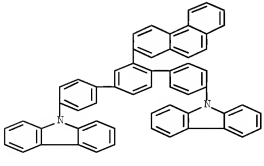
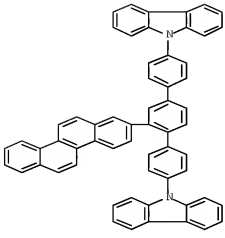
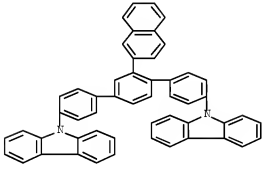


RN 861213-12-9 HCAPLUS
CN 9H-Carbazole, 9,9'-[2'-(2-chrysenyl)[1,1':4',1''-terphenyl]-4,4''-diyl]bis- (9CI) (CA INDEX NAME)



IT 861213-05-0P
RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(host material for organic electroluminescent device)
RN 861213-05-0 HCAPLUS
CN 9H-Carbazole, 9,9'-[2'-(2-naphthalenyl)[1,1':4',1''-terphenyl]-4,4''-diyl]bis- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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=> d his l29

     (FILE 'HCAPLUS' ENTERED AT 13:37:34 ON 23 SEP 2008)
L29            2 S L28

=> d que l29
L1                STR
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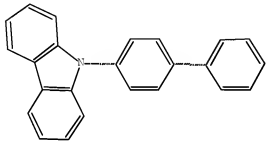
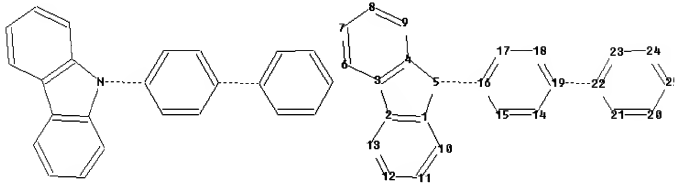


Structure attributes must be viewed using STN Express query preparation:

Uploading L2.str



```
ring nodes :
1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23
24  25
chain bonds :
5-16  19-22
ring bonds :
1-2  1-5  1-10  2-3  2-13  3-4  3-6  4-5  4-9  6-7  7-8  8-9  10-11  11-12  12-13
14-15  14-19  15-16  16-17  17-18  18-19  20-21  20-25  21-22  22-23  23-24  24-25
exact/norm bonds :
1-5  4-5  5-16  19-22
exact bonds :
2-3
normalized bonds :
1-2  1-10  2-13  3-4  3-6  4-9  6-7  7-8  8-9  10-11  11-12  12-13  14-15  14-19
15-16  16-17  17-18  18-19  20-21  20-25  21-22  22-23  23-24  24-25
isolated ring systems :
containing 1 : 14 : 20 :
```

```
Match level :
1:Atom  2:Atom  3:Atom  4:Atom  5:Atom  6:Atom  7:Atom  8:Atom  9:Atom  10:Atom
11:Atom  12:Atom  13:Atom  14:Atom  15:Atom  16:Atom  17:Atom  18:Atom  19:Atom
20:Atom  21:Atom
22:Atom  23:Atom  24:Atom  25:Atom



L2          642 SEA FILE=REGISTRY SSS FUL L1
L3              STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY -  AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation:

Uploading L5.str
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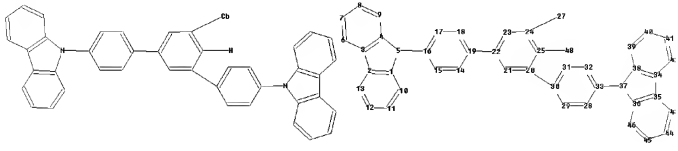
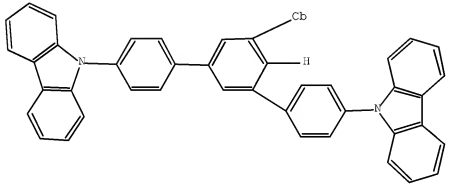


```
chain nodes :
27  48
ring nodes :
1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23
24  25  28  29  30  31  32  33  34  35  36  37  38  39  40  41  42  43  44  45  46
chain bonds :
5-16  19-22  20-30  24-27  25-48  33-37
ring bonds :
1-2  1-5  1-10  2-3  2-13  3-4  3-6  4-5  4-9  6-7  7-8  8-9  10-11  11-12  12-13
14-15  14-19  15-16  16-17  17-18  18-19  20-21  20-25  21-22  22-23  23-24  24-25
28-29  28-33
29-30  30-31  31-32  32-33  34-35  34-38  34-42  35-36  35-43  36-37  36-46  37-38
38-39  39-40
40-41  41-42  43-44  44-45  45-46
exact/norm bonds :
1-5  4-5  5-16  33-37  36-37  37-38
exact bonds :
2-3  19-22  20-30  24-27  25-48  34-35
normalized bonds :
1-2  1-10  2-13  3-4  3-6  4-9  6-7  7-8  8-9  10-11  11-12  12-13  14-15  14-19
15-16  16-17  17-18  18-19  20-21  20-25  21-22  22-23  23-24  24-25  28-29  28-33
29-30  30-31
31-32  32-33  34-38  34-42  35-36  35-43  36-46  38-39  39-40  40-41  41-42  43-44
44-45  45-46
isolated ring systems :
containing 1 : 14 : 20 : 28 : 34 :


Match level :
```

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom
20:Atom 21:Atom
22:Atom 23:Atom 24:Atom 25:Atom 27:Atom 28:Atom 29:Atom 30:Atom 31:Atom
32:Atom 33:Atom
34:Atom 35:Atom 36:Atom 37:Atom 38:Atom 39:Atom 40:Atom 41:Atom 42:Atom
43:Atom 44:Atom
45:Atom 46:Atom 48:CLASS
Generic attributes :
27:
Number of Carbon Atoms : 7 or more

L5 8 SEA FILE=REGISTRY SUB=L2 SSS FUL L3
L20 STR



Structure attributes must be viewed using STN Express query preparation.
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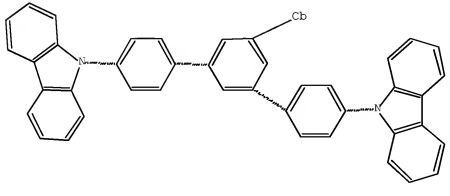
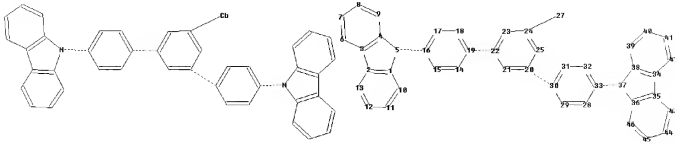
L23 9 SEA FILE=REGISTRY ABB=ON PLU=ON L22 NOT L5
L25 STR



Structure attributes must be viewed using STN Express query preparation:

Uploading L6.str



chain nodes :
27
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
24 25 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46
chain bonds :
5-16 19-22 20-30 24-27 33-37
ring bonds :
1-2 1-5 1-10 2-3 2-13 3-4 3-6 4-5 4-9 6-7 7-8 8-9 10-11 11-12 12-13
14-15 14-19 15-16 16-17 17-18 18-19 20-21 20-25 21-22 22-23 23-24 24-25
28-29 28-33
29-30 30-31 31-32 32-33 34-35 34-38 34-42 35-36 35-43 36-37 36-46 37-38
38-39 39-40
40-41 41-42 43-44 44-45 45-46
exact/norm bonds :
1-5 4-5 5-16 19-22 20-30 33-37 36-37 37-38
exact bonds :
2-3 24-27 34-35
normalized bonds :
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15-16 16-17 17-18 18-19 20-21 20-25 21-22 22-23 23-24 24-25 28-29 28-33
29-30 30-31
31-32 32-33 34-38 34-42 35-36 35-43 36-46 38-39 39-40 40-41 41-42 43-44
44-45 45-46
isolated ring systems :
containing 1 : 14 : 20 : 28 : 34 :

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom
20:Atom 21:Atom
22:Atom 23:Atom 24:Atom 25:Atom 27:Atom 28:Atom 29:Atom 30:Atom 31:Atom
32:Atom 33:Atom
34:Atom 35:Atom 36:Atom 37:Atom 38:Atom 39:Atom 40:Atom 41:Atom 42:Atom
43:Atom 44:Atom
45:Atom 46:Atom
Generic attributes :
27:
Saturation : Unsaturated
Number of Carbon Atoms : 7 or more
Type of Ring System : Polycyclic

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L27           9 SEA FILE=REGISTRY SUB=L2 SSS FUL L25
L28           9 SEA FILE=REGISTRY ABB=ON  PLU=ON  L27 OR L23
L29           2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L28


=> d l29 1-2 ibib abs hitstr

L29  ANSWER 1 OF 2  HCAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:         2005:697162  HCAPLUS  Full-text
DOCUMENT NUMBER:          143:182921
TITLE:                    Host material for organic electroluminescent device
INVENTOR(S):              Nakamura, Hiroaki; Arakane, Takashi; Iwakuma,
                          Toshihiro; Ikeda, Kiyoshi; Ikeda, Hidetsugu; Kubota,
                          Mineyuki
PATENT ASSIGNEE(S):       Idemitsu Kosan Co., Ltd., Japan
SOURCE:                   PCT Int. Appl., 37 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 Japanese
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

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     WO 2005072017        A1    20050804    WO 2005-JP522          20050118
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             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
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OTHER SOURCE(S):          MARPAT 143:182921
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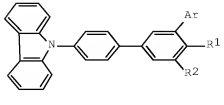


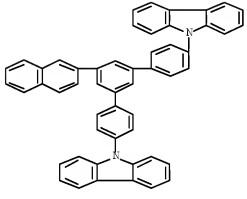
I

AB A compound which is used for organic electroluminescent device (EL) having a long luminescent life and excellent heat resistance. It is a host material for organic electroluminescent devices which comprises a carbazole derivative represented by the general formula (I), where one of R1 and R2 is a group represented by the structural formula (1-phenyl-4-yl)fluorene (II), and the other is a group represented by the structural formula (II), hydrogen, or aryl having 6 to 50 nucleus carbon atoms; and Ar is (un)substituted aryl having 6 to 60 nucleus carbon atoms, provided that Ar is neither Ph, 4-biphenyl, 4-terphenyl, nor 4-quaterphenyl and that when R1 is hydrogen and R2 is a group represented by the structural formula (II), then Ar is not 3,5-diphenylphenyl.

IT 861213-21-0 861213-22-1 861213-23-2
861213-24-3 861213-25-4 861213-26-5
861213-27-6
RL: DEV (Device component use); USES (Uses)
(host material for organic electroluminescent device)

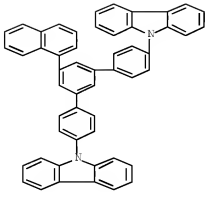
RN 861213-21-0 HCAPLUS

CN 9H-Carbazole, 9,9'-[5'-(2-naphthalenyl)[1,1':3',1''-terphenyl]-4,4''-diyl]bis- (9CI) (CA INDEX NAME)



RN 861213-22-1 HCAPLUS

CN 9H-Carbazole, 9,9'-[5'-(1-naphthalenyl)[1,1':3',1''-terphenyl]-4,4''-diyl]bis- (9CI) (CA INDEX NAME)



RN 861213-23-2 HCAPLUS
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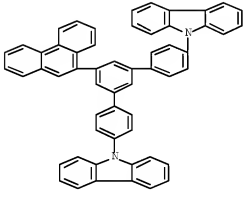

RN 861213-24-3 HCAPLUS
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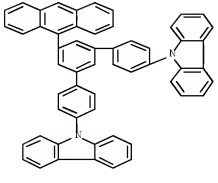

RN 861213-25-4 HCAPLUS
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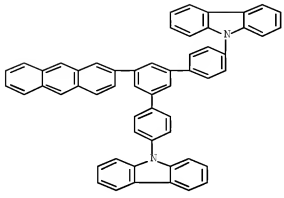
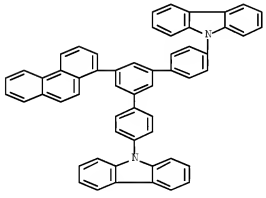
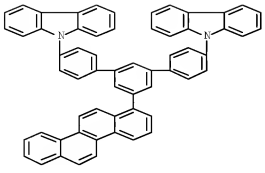


RN 861213-26-5 HCAPLUS
CN 9H-Carbazole, 9,9'-[5'-(1-phenanthrenyl)[1,1':3',1''-terphenyl]-4,4''-diyl]bis- (9CI) (CA INDEX NAME)



RN 861213-27-6 HCAPLUS
CN 9H-Carbazole, 9,9'-[5'-(1-chrysenyl)[1,1':3',1''-terphenyl]-4,4''-diyl]bis- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:324170 HCAPLUS Full-text
DOCUMENT NUMBER: 142:381934
TITLE: Coordination metal compound, material for organic electroluminescence device, material for luminescent coating formation and organic electroluminescence device
INVENTOR(S): Inoue, Tetsuya; Ito, Mitsunori; Ikeda, Hidetsugu; Iwakuma, Toshihiro; Hosokawa, Chishio
PATENT ASSIGNEE(S): Idemitsu Kosan Co., Ltd., Japan
SOURCE: PCT Int. Appl., 172 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005033118	A1	20050414	WO 2004-JP12427	20040823
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RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1659129	A1	20060524	EP 2004-772383	20040823
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
CN 1852910	A	20061025	CN 2004-80024546	20040823
US 20070009760	A1	20070111	US 2006-569420	20060223
PRIORITY APPLN. INFO.:			JP 2003-301232 A	20030826
			JP 2004-125898 A	20040421
			WO 2004-JP12427 W	20040823

AB A coordination metal compound comprising at least one spiro-bond-having ligand coordinated to a metal atom; a material for organic electroluminescence (EL)

device; and an organic EL device comprising a neg. electrode and a pos. electrode and, interposed there between, one or multiple organic thin-film layers including at least a light emitting layer, wherein at least one of the organic thin-film layers contains the above coordination metal compound or material for organic EL device. There are further provided a material for luminescent coating formation comprising an organic solvent solution containing the above coordination metal compound or material for organic EL device; and an organic EL device produced from the above material for luminescent coating formation or material for organic EL device, which organic EL device realizes high luminous efficiency and high stability during high temperature storage. Still further, there are provided, ensuring realization of the above and excelling in solubility in organic solvents, a coordination metal compound, material for organic EL device and material for luminescent coating formation.

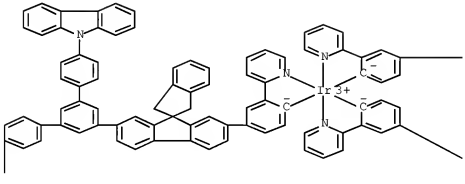
IT 849690-46-6P

RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(coordination metal compound, material for organic electroluminescence device, material for luminescent coating formation and organic electroluminescence device)

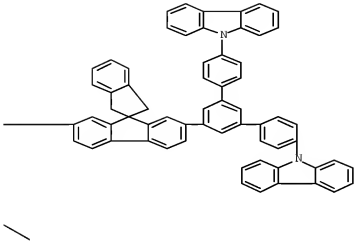
RN 849690-46-6 HCAPLUS

CN Iridium, tris[4-[7-(4,4''-di-9H-carbazol-9-yl[1,1':3',1''-terphenyl]-5'-yl)-1',3'-dihydrospiro[9H-fluorene-9,2'-[2H]inden]-2-yl]-2-(2-pyridinyl-κN)phenyl-κC]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



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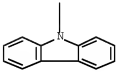
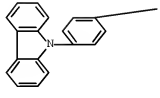
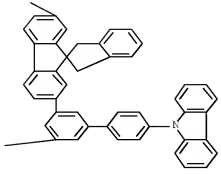
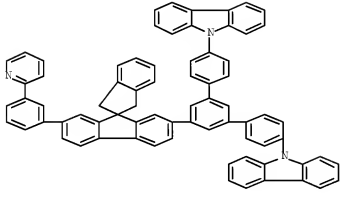






IT 849677-15-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(coordination metal compound, material for organic electroluminescence device, material for luminescent coating formation and organic electroluminescence device)
RN 849677-15-2 HCAPLUS
CN 9H-Carbazole, 9,9'-[5'-[1',3'-dihydro-7-[3-(2-pyridinyl)phenyl]spiro[9H-fluorene-9,2'-[2H]inden]-2-yl][1,1':3',1''-terphenyl]-4,4''-diyl]bis- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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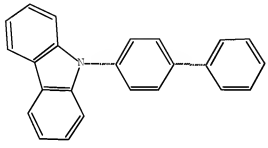

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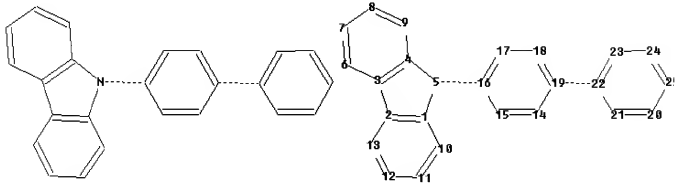

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24  25
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5-16  19-22
ring bonds :
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exact/norm bonds :
1-5  4-5  5-16  19-22
exact bonds :
2-3
normalized bonds :
1-2  1-10  2-13  3-4  3-6  4-9  6-7  7-8  8-9  10-11  11-12  12-13  14-15  14-19
15-16  16-17  17-18  18-19  20-21  20-25  21-22  22-23  23-24  24-25
isolated ring systems :
containing 1 : 14 : 20 :
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Match level :
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20:Atom  21:Atom
22:Atom  23:Atom  24:Atom  25:Atom



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L7         1442 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L2
L8       293874 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ELECTROLUMINESC?  OR LUMINESC?

L9         1354 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L7 AND L8
L10      168048 SEA FILE=HCAPLUS ABB=ON  PLU=ON  LIGHT EMITT? OR DIODE? OR
                OLED
L11         859 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L9 AND L10
L12         859 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L11 AND (PY<01012005)
L14         800 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L12 AND 73/SC,SX
L15       71838 SEA FILE=HCAPLUS ABB=ON  PLU=ON  "ELECTROLUMINESCENT DEVICES"+O
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L17       32932 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ORGANIC (L) (L8 OR L15)
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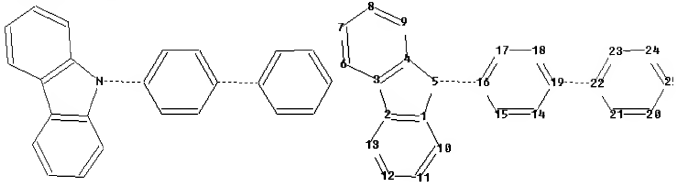


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ring nodes :
1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23
24  25
chain bonds :
5-16  19-22
ring bonds :
1-2  1-5  1-10  2-3  2-13  3-4  3-6  4-5  4-9  6-7  7-8  8-9  10-11  11-12  12-13
14-15  14-19  15-16  16-17  17-18  18-19  20-21  20-25  21-22  22-23  23-24  24-25
exact/norm bonds :
1-5  4-5  5-16  19-22
exact bonds :
2-3
normalized bonds :
1-2  1-10  2-13  3-4  3-6  4-9  6-7  7-8  8-9  10-11  11-12  12-13  14-15  14-19
15-16  16-17  17-18  18-19  20-21  20-25  21-22  22-23  23-24  24-25
isolated ring systems :
containing 1 : 14 : 20 :


Match level :
1:Atom  2:Atom  3:Atom  4:Atom  5:Atom  6:Atom  7:Atom  8:Atom  9:Atom  10:Atom
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20:Atom  21:Atom
22:Atom  23:Atom  24:Atom  25:Atom



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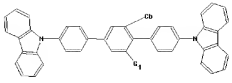
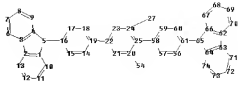
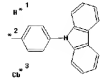
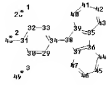
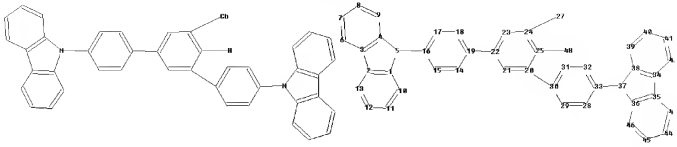





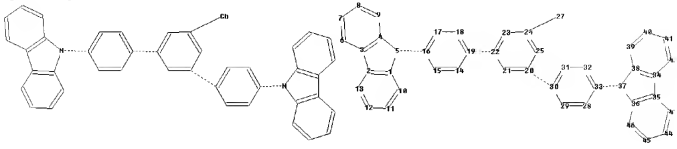
```
chain nodes :
27  28  48  49  54
ring nodes :
1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23
24  25  29  30  31  32  33  34  35  36  37  38  39  40  41  42  43  44  45  46  47
56  57  58  59
60  61  62  63  64  65  66  67  68  69  70  71  72  73  74
chain bonds :
5-16  19-22  20-54  24-27  25-58  31-48  34-38  61-65
ring bonds :
1-2  1-5  1-10  2-3  2-13  3-4  3-6  4-5  4-9  6-7  7-8  8-9  10-11  11-12  12-13
14-15  14-19  15-16  16-17  17-18  18-19  20-21  20-25  21-22  22-23  23-24  24-25
29-30  29-34
30-31  31-32  32-33  33-34  35-36  35-39  35-43  36-37  36-44  37-38  37-47  38-39
39-40  40-41
41-42  42-43  44-45  45-46  46-47  56-57  56-61  57-58  58-59  59-60  60-61  62-63
62-66  62-70  63-64
63-71  64-65  64-74  65-66  66-67  67-68  68-69  69-70  71-72  72-73  73-74
exact/norm bonds :
1-5  4-5  5-16  20-54  34-38  37-38  38-39  61-65  64-65  65-66
exact bonds :
2-3  19-22  24-27  25-58  31-48  35-36  62-63
normalized bonds :
1-2  1-10  2-13  3-4  3-6  4-9  6-7  7-8  8-9  10-11  11-12  12-13  14-15  14-19
15-16  16-17  17-18  18-19  20-21  20-25  21-22  22-23  23-24  24-25  29-30  29-34
30-31  31-32
32-33  33-34  35-39  35-43  36-37  36-44  37-47  39-40  40-41  41-42  42-43  44-45
45-46  46-47  56-57
56-61  57-58  58-59  59-60  60-61  62-66  62-70  63-64  63-71  64-74  66-67  67-68
68-69  69-70
71-72  72-73  73-74
isolated ring systems :
containing 1 : 14 : 20 : 29 : 35 : 56 : 62 :


G1:[*1],[*2],[*3]

Match level :
1:Atom  2:Atom  3:Atom  4:Atom  5:Atom  6:Atom  7:Atom  8:Atom  9:Atom  10:Atom
11:Atom  12:Atom  13:Atom  14:Atom  15:Atom  16:Atom  17:Atom  18:Atom  19:Atom
20:Atom  21:Atom
22:Atom  23:Atom  24:Atom  25:Atom  27:Atom  28:CLASS  29:Atom  30:Atom  31:Atom
```

```
32:Atom  33:Atom
34:Atom  35:Atom  36:Atom  37:Atom  38:Atom  39:Atom  40:Atom  41:Atom  42:Atom
43:Atom  44:Atom
45:Atom  46:Atom  47:Atom  48:CLASS  49:Atom  54:CLASS  56:Atom  57:Atom  58:Atom
59:Atom  60:Atom
61:Atom  62:Atom  63:Atom  64:Atom  65:Atom  66:Atom  67:Atom  68:Atom  69:Atom
70:Atom  71:Atom
72:Atom  73:Atom  74:Atom
Generic attributes :
27:
Number of Carbon Atoms : 7 or more
49:
Number of Carbon Atoms : 7 or more



L4            0 SEA SUB=L2 SSS SAM L3
L5            8 SEA SUB=L2 SSS FUL L3
                SAVE TEMP L5 GAR262REGL4/A

     FILE 'HCAPLUS' ENTERED AT 13:12:07 ON 23 SEP 2008
L6            1 SEA ABB=ON  PLU=ON  L5
                D SCAN
                SAVE TEMP L6 GAR262HCAP3/A
                D IBIB
L7         1442 SEA ABB=ON  PLU=ON  L2
L8       293874 SEA ABB=ON  PLU=ON  ELECTROLUMINESC?  OR LUMINESC?
L9         1354 SEA ABB=ON  PLU=ON  L7 AND L8
L10      168048 SEA ABB=ON  PLU=ON  LIGHT EMITT? OR DIODE? OR OLED
L11         859 SEA ABB=ON  PLU=ON  L9 AND L10
L12         859 SEA ABB=ON  PLU=ON  L11 AND (PY<01012005)
L13           1 SEA ABB=ON  PLU=ON  US 20070116982/PN
                D IBIB IT SC
L14         800 SEA ABB=ON  PLU=ON  L12 AND 73/SC,SX
                E ELECTROLUMINESCENT DEVICE?
                E ELECTROLUMINESCENT DEVICES/CT
                E E3+ALL
L15       71838 SEA ABB=ON  PLU=ON  "ELECTROLUMINESCENT DEVICES"+OLD,UF/CT
L16         785 SEA ABB=ON  PLU=ON  L14 AND L15
L17       32932 SEA ABB=ON  PLU=ON  ORGANIC (L) (L8 OR L15)
L18         630 SEA ABB=ON  PLU=ON  L14 AND L17
L19         630 SEA ABB=ON  PLU=ON  L18 AND (PY<01012005)

     FILE 'STNGUIDE' ENTERED AT 13:23:31 ON 23 SEP 2008

     FILE 'REGISTRY' ENTERED AT 13:26:44 ON 23 SEP 2008
L20           STRUCTURE UPLOADED
                D

Uploading L5.str
```



```
chain nodes :
27  48
ring nodes :
1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23
24  25  28  29  30  31  32  33  34  35  36  37  38  39  40  41  42  43  44  45  46
chain bonds :
5-16  19-22  20-30  24-27  25-48  33-37
ring bonds :
1-2  1-5  1-10  2-3  2-13  3-4  3-6  4-5  4-9  6-7  7-8  8-9  10-11  11-12  12-13
14-15  14-19  15-16  16-17  17-18  18-19  20-21  20-25  21-22  22-23  23-24  24-25
28-29  28-33
29-30  30-31  31-32  32-33  34-35  34-38  34-42  35-36  35-43  36-37  36-46  37-38
38-39  39-40
40-41  41-42  43-44  44-45  45-46
exact/norm bonds :
1-5  4-5  5-16  33-37  36-37  37-38
exact bonds :
2-3  19-22  20-30  24-27  25-48  34-35
normalized bonds :
1-2  1-10  2-13  3-4  3-6  4-9  6-7  7-8  8-9  10-11  11-12  12-13  14-15  14-19
15-16  16-17  17-18  18-19  20-21  20-25  21-22  22-23  23-24  24-25  28-29  28-33
29-30  30-31
31-32  32-33  34-38  34-42  35-36  35-43  36-46  38-39  39-40  40-41  41-42  43-44
44-45  45-46
isolated ring systems :
containing 1 : 14 : 20 : 28 : 34 :


Match level :
1:Atom  2:Atom  3:Atom  4:Atom  5:Atom  6:Atom  7:Atom  8:Atom  9:Atom  10:Atom
11:Atom  12:Atom  13:Atom  14:Atom  15:Atom  16:Atom  17:Atom  18:Atom  19:Atom
20:Atom  21:Atom
22:Atom  23:Atom  24:Atom  25:Atom  27:Atom  28:Atom  29:Atom  30:Atom  31:Atom
32:Atom  33:Atom
34:Atom  35:Atom  36:Atom  37:Atom  38:Atom  39:Atom  40:Atom  41:Atom  42:Atom
43:Atom  44:Atom
45:Atom  46:Atom  48:CLASS
Generic attributes :
27:
Number of Carbon Atoms : 7 or more




L21             0 SEA SUB=L2 SSS SAM L20
L22             9 SEA SUB=L2 SSS FUL L20
L23             9 SEA ABB=ON  PLU=ON  L22 NOT L5
```

```
     FILE 'HCAPLUS' ENTERED AT 13:28:17 ON 23 SEP 2008
L24            2 SEA ABB=ON  PLU=ON  L23

     FILE 'STNGUIDE' ENTERED AT 13:29:42 ON 23 SEP 2008

     FILE 'REGISTRY' ENTERED AT 13:36:01 ON 23 SEP 2008
L25            STRUCTURE UPLOADED
               D

Uploading L6.str
```



```
chain nodes :
27
ring nodes :
1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23
24  25  28  29  30  31  32  33  34  35  36  37  38  39  40  41  42  43  44  45  46
chain bonds :
5-16  19-22  20-30  24-27  33-37
ring bonds :
1-2  1-5  1-10  2-3  2-13  3-4  3-6  4-5  4-9  6-7  7-8  8-9  10-11  11-12  12-13
14-15  14-19  15-16  16-17  17-18  18-19  20-21  20-25  21-22  22-23  23-24  24-25
28-29  28-33
29-30  30-31  31-32  32-33  34-35  34-38  34-42  35-36  35-43  36-37  36-46  37-38
38-39  39-40
40-41  41-42  43-44  44-45  45-46
exact/norm bonds :
1-5  4-5  5-16  19-22  20-30  33-37  36-37  37-38
exact bonds :
2-3  24-27  34-35
normalized bonds :
1-2  1-10  2-13  3-4  3-6  4-9  6-7  7-8  8-9  10-11  11-12  12-13  14-15  14-19
15-16  16-17  17-18  18-19  20-21  20-25  21-22  22-23  23-24  24-25  28-29  28-33
29-30  30-31
31-32  32-33  34-38  34-42  35-36  35-43  36-46  38-39  39-40  40-41  41-42  43-44
44-45  45-46
isolated ring systems :
containing 1 : 14 : 20 : 28 : 34 :


Match level :
1:Atom  2:Atom  3:Atom  4:Atom  5:Atom  6:Atom  7:Atom  8:Atom  9:Atom  10:Atom
11:Atom  12:Atom  13:Atom  14:Atom  15:Atom  16:Atom  17:Atom  18:Atom  19:Atom
20:Atom  21:Atom
22:Atom  23:Atom  24:Atom  25:Atom  27:Atom  28:Atom  29:Atom  30:Atom  31:Atom
32:Atom  33:Atom
34:Atom  35:Atom  36:Atom  37:Atom  38:Atom  39:Atom  40:Atom  41:Atom  42:Atom
43:Atom  44:Atom
45:Atom  46:Atom
```

```
Generic attributes :
27:
Saturation             : Unsaturated
Number of Carbon Atoms : 7 or more
Type of Ring System    : Polycyclic




L26           0 SEA SUB=L2 SSS SAM L25
L27           9 SEA SUB=L2 SSS FUL L25
L28           9 SEA ABB=ON  PLU=ON  L27 OR L23

     FILE 'HCAPLUS' ENTERED AT 13:37:34 ON 23 SEP 2008
L29           2 SEA ABB=ON  PLU=ON  L28
                D SCAN TI
                D AU 1-2

     FILE 'REGISTRY' ENTERED AT 13:38:16 ON 23 SEP 2008
                SAVE TEMP L23 GAR262REGL5/A
                SAVE TEMP L28 GAR262REGL6/A

     FILE 'HCAPLUS' ENTERED AT 13:39:28 ON 23 SEP 2008

     FILE 'STNGUIDE' ENTERED AT 13:41:35 ON 23 SEP 2008
                D QUE L6

     FILE 'HCAPLUS' ENTERED AT 13:42:07 ON 23 SEP 2008
                D L6 IBIB ABS HITSTR

     FILE 'STNGUIDE' ENTERED AT 13:42:08 ON 23 SEP 2008
                D QUE L29

     FILE 'HCAPLUS' ENTERED AT 13:42:58 ON 23 SEP 2008
                D L29 1-2 IBIB ABS HITSTR

     FILE 'STNGUIDE' ENTERED AT 13:42:59 ON 23 SEP 2008
                D QUE L19
```